

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.111, and in light of the remarks which follow, are respectfully requested.

Claims 6, 12, 24, 31, 35 and 39 have been rewritten in independent form. Claim 30 has been amended to recite that the (polar agent:initiator) molar ratio is greater than 10. Claim 26 has been amended to further improve its form, which does not narrow the scope of the claim. Claims 29 and 34 have been amended to depend from claim 31. Claims 40-43 have been added. Claim 40 is supported by the application, for example, claims 1 and 6. Claims 41-43 correspond to claims 2-4, respectively, and depend from claim 40. Claim 27 has been canceled without prejudice or disclaimer. Claim 28 was previously canceled. Upon entry of the Amendment, claims 1-26 and 29-43 will be all the claims pending in the application.

Applicants note with appreciation that claims 15, 19-22 and 25 are allowed.

I. Response to Rejections under 35 U.S.C. 35 U.S.C. §§ 102/103

a. Claims 27, 30 and 36-38 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,316,820 to Wieder et al. for the reasons set forth at pages 2-5 of the Office Action.

Applicants respectfully traverse the rejection of claim 37, for at least the reason that claim 37 depends from claim 25, which is allowed and not included in this rejection.

In addition, Applicants respectfully traverse the rejection of claim 27 is moot because claim 27 has been canceled.

Further, Applicants respectfully submit that claims 30, 36 and 38 as amended are patentable over Wieder et al. for at least the following reasons.

As noted above, Applicants have amended claim 30, from which claims 36 and 38 depend, directly or indirectly, to recite that the (polar agent:initiator) molar ratio is greater than 10. In contrast, Wieder et al. describes a catalyst having a molar ratio of organometallic compound/tertiary aliphatic amine of 0.1:1 to 10:1, i.e., a molar ratio of tertiary aliphatic amine/organometallic compound of 10:1 to 0.1:1. However, Wieder et al. does not disclose or suggest a catalyst wherein the molar ratio of polar agent/initiator is greater than 10, as recited in the present claims.

In view of the above, Applicants respectfully submit that present claims 30, 36 and 38 are not obvious over Wieder et al. and thus the rejection should be withdrawn.

b. Claims 27 and 34 were rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,894,425 to Hellermann et al. and U.S. Patent No. 5,336,739 to Hsu et al. for the reasons set forth at pages 5-6 of the Office Action. In addition, claim 29 was rejected under 35 U.S.C. § 103(a) as being obvious over Hsu et al. for the reasons discussed at pages 6-7 of the Action. Further, claims 1-5, 7-11, 13, 14, 16-18, 23, 26 and 29 were rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Hellermann et al., for the reasons provided at pages 7-9 of the Office Action.

Applicants respectfully submit that the rejections of claim 27 are moot because claim 27 has been canceled.

Further, Applicants respectfully submit that the present claims as amended are novel and patentable over the cited references for at least the following reasons.

1. Present claims 1-5, 7-11, 13, 14, 16-18, 23 and 26

Present claims 1-5 and 7-11 recite a linear or branched diene elastomer which comprises cyclic vinyl units in a mass content of greater than or equal to 15% (see claims 1 and 8). Claims 13, 14, 16-18, 23 and 26 recite a process for the production of a linear or branched diene elastomer which comprises cyclic vinyl units in a mass content of greater than or equal to 15% (see claim 13). Hellermann et al. does not disclose or suggest an elastomer containing cyclic vinyl units, let alone an elastomer containing cyclic vinyl units in a mass content of greater than or equal to 15%. Moreover, Hellermann et al. does not disclose or suggest a process for producing an elastomer containing cyclic vinyl units.

In this regard, Hellermann et al. discloses polyisoprenes but is silent on the mass content of cyclic vinyl units. In fact, polyisoprenes described in Hellermann et al. do not comprise cyclic vinyl units. Cyclic vinyl units can be formed when, e.g., butadiene, is used, wherein the pending vinyl parts can cyclize to form cycles. However, in the case of isoprene, the CH₃ group of the isoprene sterically prevents the formation of cyclic vinyl units.

2. Present claims 29 and 34

As noted above, Applicants have amended claims 29 and 34 to depend from allowable claim 31.

In view of the foregoing, Applicants respectfully submit that the present claims are not anticipated by or obvious over Hellermann et al. and Hsu et al., and thus the rejections should be withdrawn.

II. Response to Claim Objection

Claims 6, 12, 24, 31-33, 35 and 39 were objected to as being dependent from a rejected base claim.

As noted above, Applicants have rewritten claims 6, 12, 24, 31, 35 and 39 in independent form. Claim 32 and 33 depend from claim 31. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the objection.

III. Conclusion


From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (202) 452-7932 at his earliest convenience.

Respectfully submitted,

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